

Second Party Opinion Assessment of the Sustainability Quality of the Green Bond Asset Portfolio for the first Green Bond of Nordea Bank AB

14 June 2017

Aim and Scope of this Second Party Opinion

Nordea commissioned oekom research to assist with the issuance of its first Green Bond by confirming the sustainable added value of a Green Bond Asset Portfolio, from which assets for the Green Bond issuance will be chosen. The assessment of the Green Bond Asset Portfolio was conducted using the criteria and indicators of a Green Bond Analysis Framework developed by oekom research. The aim of the Green Bond issuance is to create transparency around funds targeted to climate change mitigation and other environmentally beneficial uses, which in turn create a positive benchmark to all investments.

oekom research's mandate included the following services:

- Definition of a Green Bond Analysis Framework ("oekom Green Bond Analysis Framework") containing a clear description of eligible asset categories and the social and environmental criteria assigned to each category for evaluating the sustainability-related performance of the assets (re-)financed through the proceeds of the bond.
- Analysis of the alignment of the Green Bond to be issued out of the Green Bond Asset Portfolio against the ICMA's Green Bond Principles.
- Evaluation of compliance of the Green Bond Asset Portfolio with the oekom Green Bond Analysis Framework criteria.
- Review and classification of Nordea's sustainability performance on the basis of the oekom Corporate Rating.

Overall Evaluation of the Green Bond Asset Portfolio

oekom's overall evaluation of the Green Bond Asset Portfolio and the respective Green Bond of Nordea is positive:

- Nordea has defined a formal concept for its Green Bond regarding use of proceeds, processes for
 project evaluation and selection, management of proceeds and reporting. This concept is in line
 with the Green Bond Principles (Part I of this Second Party Opinion).
- The overall sustainability quality of the Green Bond Asset Portfolio in terms of sustainability benefits and risk avoidance and minimisation is good (Part II of this Second Party Opinion).¹
- The issuer itself shows a good sustainability performance (Part III of this Second Party Opinion).

¹ The sustainability performance of the Green Bond issued may differ from this assessment depending on the assets selected for actual inclusion in the bond.



There are some aspects for which more specific selection or performance criteria would be recommended as that could still add to the overall quality of the Green Bond Asset Portfolio. Regarding wind power and hydro power assets, selection criteria should include comprehensive environmental impact assessments for all larger assets and environmental screening for smaller assets as well as measures to mitigate environmental impacts and disclosure thereof.

Regarding some of the issues that could be improved and missing disclosures mentioned in the findings, the large variety of use of proceeds needs to be taken into account. For example, loans were granted for private wind power plants on agricultural land but also for the acquisition of several hydro power plants or the construction of large, commercial real estate assets. From a sustainability point of view, this variety is also considered positive as economic diversity is fostered.



Part I – Green Bond Principles

1) Use of Proceeds

The proceeds of the Green Bond will be used exclusively to finance assets matching Nordea's Green Bond Framework. This framework covers six eligible Green Asset Categories: Renewable Energy, Energy Efficiency, Green Buildings, Pollution Prevention and Control, Clean Transportation and Sustainable Management of Living Natural Resources. From a sustainability point of view, the Green Asset Categories are positive: All categories contribute towards a transition to a low carbon economy and/or to prevention of pollution and protection of natural resources.

Some loans in Nordea's Green Bond Asset Portfolio were granted to finance a portfolio of assets. In these cases, Nordea included only the actual or estimated share of costs spent on eligible purposes in the Green Bond Asset Portfolio. All assets are eligible in accordance with Nordea's Green Bond Framework.

The assets included in the Green Bond Asset Portfolio cover a large variety of use of proceeds, ranging from retail banking to corporate banking. For example, loans were granted for private wind power plants on agricultural land but also for the acquisition of several hydro power plants or the construction of large, commercial real estate assets.

Details regarding the assets included in the Green Bond Asset Portfolio are listed in the following table:

	Green Asset Category	Subcategories	Assets Green I Portfol	included in Bond Asset io	Share of Green Bond Asset Portfolio
A	Renewable Energy	Wind power	√	yes	EUR 272.1m (34%)
		Solar power	X	no	EUR 0m (0%)
		Hydro power	✓	yes	EUR 167.3m (21%)
		Integration of renewable energy into the transmission network	×	no	EUR 0m (0%)
В	Energy Efficiency	Smart grids	×	no	EUR 0m (0%)
		Energy storage	×	no	EUR 0m (0%)
		District heating	X	no	EUR 0m (0%)
С	Green Buildings	Certified green buildings	\checkmark	yes	EUR 262.3m (32%)

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	Green Asset Category	Subcategories	Assets Green Portfol	included in Bond Asset io	Share of Green Bond Asset Portfolio
D	Pollution Prevention and Control	Water management (water supply)	√	yes	EUR 22.5m (3%)
		Waste water management	✓	yes	EUR 16.6m (2%)
		Waste-to-energy	✓	yes	EUR 66.0m (8%)
E	Clean Transportation	Public transportation / Freight transportation	X	no	EUR 0m (0%)
F	Sustainable Management of Living Natural Resources	Sustainable Forestry	×	no	EUR 0m (0%)
		Sustainable Agriculture	×	no	EUR 0m (0%)
т	TOTAL				EUR 806.8m

2) Process for Project Evaluation and Selection

Nordea has set up the process of evaluation and selection as follows:

Potential Green Bond Assets are chosen from the relevant business units according to Nordea's financing criteria and proposed for selection by the business units. Assets need to qualify as Green Bond Assets and comply with the relevant Nordea ESG evaluation and the chosen assets are subject to evaluation by sustainability experts within Nordea. In a next step, the potential Green Bond Asset Portfolio is evaluated by the external second opinion provider.

A Green Bond Committee will also review the Green Bond Asset Portfolio and confirm the allocation of Green Bond Assets on a semi-annual basis. The Green Bond Committee will also confirm any replacement of repaid Green Bond Assets with assets from the Green Bond Asset Portfolio, or if such are not available, to liquidity funding accounts.

The Green Bond Committee includes representatives from the relevant units within the following functions: Sustainability expert functions, Group Sustainability, Treasury, business units within the Wholesale or Commercial Banking business areas, Business risk organisation and Legal functions.

For assets to qualify under Nordea's Green Bond Framework– as defined by Nordea – they have to meet certain requirements. For example, buildings need to be awarded certain certifications (at least LEED "Gold", BREEAM "Very good", or Miljöbyggnad "Silver") and renovations have to lead to a certain improvement in energy performance (at least 25% lower than national regulations or a 25% overall improvement). Forestry assets need to be certified to FSC or PEFC Sweden, agricultural assets need to be certified organic according to EU legislation.

The proceeds of any Nordea Green Bond shall not be used towards financing of nuclear or fossil fuel energy operations or that is deemed by Nordea to be in the sectors "Weapons & Defence", "Coal Mining" and "Tobacco". Additionally, any assets deemed not to be eligible as a result of Nordea's



corporate customer ESG assessment process will not be selected for financing or refinancing proceeds of any Green Bond issued by Nordea.

3) Management of Proceeds

Nordea will establish a Green Bond Register in relation to the Green Bond for the purpose of recording the Green Bond Asset Portfolio and the allocation of the net proceeds from the Green Bond to Green Bond Assets.

The net proceeds of the Green Bond issued by Nordea will be deposited in the general funding accounts and earmarked for allocation in the Green Bond Register.

The composition and amount of Green Bond Assets will be reviewed quarterly to account for any repayments and drawings and compare those records with the allocations documented in the Green Bond Register.

It is Nordea's intention to maintain an aggregate amount of assets in the Green Bond Asset Portfolio that is at least equal to the aggregate net proceeds of the Nordea Green Bond. Any portion of the net proceeds from the Green Bond which have not been allocated to Green Bond Assets in the Green Bond Register will be held in accordance with Nordea's normal liquidity management policy.

The Green Bond Register will contain relevant information to identify Green Bond Assets, including the country, category and nature of the assets. The Green Bond Register will form the basis for the impact reporting.

4) Reporting

Use of proceeds reporting:

Nordea will annually publish a Green Bond Report on its website that provides:

- The amount of net proceeds that has been allocated within each Green Bond Asset Category (and, when possible and relevant, further information on the Green Bond Assets).
- The remaining balance of net proceeds which have not been allocated to Green Bond Assets.
- Examples of Green Bond Assets (if not subject to confidentiality agreements).



Impact reporting:

In each annual Green Bond Report, Nordea will also include information on the environmental impact of the Green Bond Assets for each Green Bond Asset Category.

Nordea aims to include the following indicators in the reporting, subject to the availability of information and baseline data.

	Green Bond Asset Category	Subcategories	Impact indicators	
A	Renewable Energy	Wind power Solar power Hydro power	Installed renewable energy production capacity (MW)	Estimation of avoided CO2e emissions
В	Energy Efficiency	Smart grids Energy storage District heating	Amount of energy saved (MW)	Estimation of avoided CO2e emissions
C	Green Buildings	Certified green buildings	Amount of energy saved (MW)	Estimation of avoided CO2e emissions
D	Pollution Prevention and Control	Water management (water supply) Waste water management	Water withdrawals or treatment capacity (m³/day)²	
		Waste-to-energy	Production capacity (MW)	
E	Clean Transportation	Public transportation / Freight transportation	Number of passengers or amount of freight shipped	
F	Sustainable Management of Living Natural Resources	Sustainable Forestry Sustainable Agriculture	Area certified to organic/sustainability standards	

² Nordea might develop further impact indicators for the category Pollution Prevention and Control.



Part II – Sustainability Quality of the Green Bond Asset Portfolio

1) oekom Green Bond Analysis Framework

The oekom Green Bond Analysis Framework serves as a structure for evaluating the sustainability quality – i.e. the social and environmental added value – of the use of proceeds of Nordea's Green Bond Asset Portfolio. It comprises firstly the definition of the use of proceeds category offering added social and/or environmental value and secondly the specific sustainability criteria by means of which this added value and therefore the sustainability performance of the Green Bond Asset Portfolio can be clearly identified and described.

The sustainability criteria are complemented by specific indicators, which enable quantitative measurement of the sustainability performance of the Green Bond Asset Portfolio and which can also be used for reporting. Details on the individual criteria and indicators for the categories can be found in Annex 1 "oekom Green Bond Analysis Framework".

2) Evaluation of the Assets within the Green Bond Asset Portfolio

Method

oekom research has evaluated whether the assets included in the Green Bond Asset Portfolio match the categories and criteria listed in the Green Bond Analysis Framework. The evaluation was carried out using information and documents provided to oekom research on a confidential basis by Nordea (e.g. environmental impact assessments, internal due diligence reports, details on proximity of assets to protected areas). Further, national legislation and standards, depending on the asset location, were drawn on to complement the information provided by Nordea.

Amounts outstanding were used to calculate the share of underlying assets which fulfil an indicator requirement.



Findings Wind Power

Sustainability Benefits and Risks of the Asset Category

The environmental benefits of wind power comprise climate protection and the transition towards a low carbon economy. Further benefits are less environmental intervention (e.g. resource extraction, releases of waste streams to air, water or soil) and less need for cooling water in comparison to fossil fuel or nuclear power plants.

Regarding wind power, the construction and operation of power plants can result in negative environmental impacts (e.g. biodiversity, noise) and impacts on local communities. Further risks include potentially poor working conditions during construction and maintenance of power plants as well as in the production processes of wind power plants. As the construction of these plants requires large amounts of raw materials and equipment, life cycle aspects are an important factor when assessing the overall environmental footprint of related projects.

All projects selected for the Green Bond Asset Portfolio are located in highly-regulated, Nordic countries.

Wind power assets	Percentage of volume of all wind power assets
Small scale assets	33%
Large scale assets	67%

- 1. Consideration of environmental aspects during planning and operation
 - ✓ 100% of underlying assets comply with local regulations which provide for minimum standards regarding the assessment of possible environmental impacts of wind power plants (i.e. environmental impact assessment compulsory for large scale plants, basic environmental screenings).
 - **O** The exact number of underlying assets which underwent individual and in-depth environmental impact assessments was not disclosed.
 - ✓ 100% of underlying assets are not located in key biodiversity areas (e.g. exclusion of Ramsar sites, UNESCO Natural Word Heritage, IUCN protected areas I-IV).
 - ✓ 100% of underlying assets comply with local regulations and meet high environmental standards during the construction phase (e.g. rehabilitation after construction phase, regulation of noise).
 - ✓ 100% of underlying assets comply with local regulations and provide for measures to protect wildlife and habitat if necessary (e.g. monitoring of bat population, regulations on noise and shadows).



• 2. Environmental aspects of wind power plants

Small scale assets

- ✓ More than 70% of small scale wind power assets generally financed by Nordea are produced by manufacturers that carry out life-cycle assessments of the wind power plants and/or its components. For the remaining 30%, no information regarding life-cycle assessments is available.
- No information is available on the exact number of underlying assets for which life-cycle assessments were carried out, as information regarding manufacturers was only disclosed on a generic level and not on an individual basis.

Large scale assets

- ✓ 63% of underlying, large scale assets are produced by manufacturers that carry out life-cycle assessments of the wind power plants and/or its components. For the remaining 27%, no information regarding life-cycle assessments is available.
- 3. Community dialogue (onshore wind power projects only)
 - ✓ 100% of underlying assets comply with local regulations which provide for good standards regarding the consideration of local residents' interests during the planning phase (e.g. information meetings).
- 4. Working conditions during construction and maintenance work
 - ✓ 100% of underlying assets are located in countries where high labour standards are in place for both employees and contractors (provided for by national legislation).
 - ✓ 100% of underlying assets are located in countries where high health and safety standards are in place for both employees and contractors (provided for by national legislation).
- 5. Social standards in the supply chain

Small scale assets

- ✓ 89% of small scale wind power assets generally financed by Nordea are produced by manufacturers that primarily produce (i.e. have more than 50% of production sites) in countries with high social standards. For the remaining 11%, either no information on production sites is available or production sites are not primarily located in countries with high social standards.
- Only 20% of small scale wind power assets generally financed by Nordea are produced by manufacturers that require high social standards from their suppliers (e.g. ILO core conventions). For the remaining 80%, either no information is available or supplier standards are not of sufficient quality.
- No information is available on the exact number of underlying assets and the respective manufacturers, as information regarding manufacturers was only disclosed on a generic level and not on an individual basis.



Large scale assets

- ✓ 58% of underlying, large scale assets are produced by manufacturers that primarily produce (i.e. have more than 50% of production sites) in countries with high social standards. For the remaining 42%, either no information on production sites is available or production sites are not primarily located in countries with high social standards.
- ✓ 53% of underlying, large scale assets are produced by manufacturers that require high social standards from their suppliers (e.g. ILO core conventions). For the remaining 47%, either no information is available or supplier standards are not of sufficient quality.

Controversy assessment

• A controversy assessment on the underlying assets did not reveal any controversial activities or practices that could be attributed to Nordea.



Hydro power (small run-of-river and existing plants)

Sustainability Benefits and Risks of the Asset Category

From an environmental perspective, hydro power projects contribute to climate protection and to a transition towards a low-carbon economy. Further benefits are less environmental degradation and pollution (e.g. through resource extraction, releases of waste streams to water or soil) in comparison to fossil fuels or nuclear power plants. From a social perspective, the transition from fossil fuels to hydro power decreases negative human rights impacts of oil, gas and coal production (e.g. land-use conflicts, resettlement). In addition – in comparison to fossil fuel combustion – hydro power does not negatively impact air quality.

However, the construction and operation of hydro power plants can result in negative environmental impacts. Ecosystems and biodiversity in the proximity of the plant might suffer, as for example turbines are a threat to fish and interference in waterways poses erosion risks. The main social risks stem from potentially poor working conditions in the construction and operational stage. Further, sufficient access of good quality water for local communities during and after the construction of the plant is also an important challenge.

All projects selected for the Green Bond Asset Portfolio are located in highly-regulated, Nordic countries.

- 1. Consideration of environmental aspects during planning and operation
 - ✓ 100% of underlying assets comply with local regulations which provide for minimum standards regarding the assessment of possible environmental impacts of hydro power plants (i.e. environmental impact assessment compulsory for large scale plants).
 - The exact number of underlying assets which underwent individual and in-depth environmental impact assessments was not disclosed.
 - ✓ 100% of underlying assets are not located in key biodiversity areas (e.g. exclusion of Ramsar sites, UNESCO Natural Word Heritage, IUCN protected areas I-IV).
 - ✓ 100% of underlying assets comply with local regulations that generally require the mitigation of negative environmental impacts during construction and operation of hydro power plants.
 - Specific measures and/or standards during the construction phase were not disclosed (e.g. renaturation after construction work).
 - Specific measures and/or standards to protect habitat and wildlife were not disclosed (e.g. provision of fish passes, fish-friendly turbines, provision for sediment transport, management of erosion risks).
- 2. Community dialogue
 - ✓ 100% of underlying assets comply with local regulations which provide for good standards regarding the consideration of local residents' interests during the planning phase (e.g. public dialogue schemes).



- 3. Working conditions during construction and maintenance work
 - ✓ 100% of underlying assets are located in countries where high labour standards are in place for both employees and contractors (provided for by national legislation).
 - ✓ 100% of underlying assets are located in countries where high health and safety standards are in place for both employees and contractors (provided for by national legislation).

Controversy assessment

• A controversy assessment on the underlying assets did not reveal any controversial activities or practices that could be attributed to Nordea.



Green buildings (commercial and residential real estate)

Sustainability Benefits and Risks of the Asset Category

Green buildings are beneficial from an environmental point of view as they contribute to climate protection through optimised energy efficiency and air quality. Further, green buildings help to conserve natural resources and reduce environmental impact through the reduction of waste and wastewater. From a social point of view, green buildings can improve occupant health and comfort.

At the same time, there are possible sustainability risks that need to be taken into account. Possible social risks stem from working conditions at construction sites, the integration of new buildings into the social context and the safety of building users. Environmental risks stem from impacts on biodiversity at the planning stage, as well as from poor resource efficiency during construction phase and at the use stage.

All projects selected for the Green Bond Asset Portfolio are located in highly-regulated, Nordic countries.

- Involvement of local residents at the planning stage (only applicable for new builds)
 - ✓ 100% of relevant underlying assets provide for involvement of residents at the planning stage (e.g. information of residents).
- 2. Environmental standards for site selection (only applicable for new builds)
 - **O** No information is available regarding the development of new buildings on brownfield sites.
 - 100% of relevant underlying assets are located inside metropolitan areas. Therefore, the indicator regarding environmental impact assessment is not applicable.
- 3. Access to public transport
 - ✓ 100% of underlying assets are located within a maximum of 1 km from one or more modalities of public transport.
- 4. Social standards for construction (only applicable for new builds and renovations)
 - ✓ 100% of underlying assets are located in countries where high labour standards are in place for both employees and contractors (provided for by national legislation).
 - ✓ 100% of underlying assets are located in countries where high health and safety standards are in place for both employees and contractors (provided for by national legislation).
- 5. Environmental standards for construction (only applicable for new builds and renovations)
 - ✓ 100% of relevant underlying assets provide for good environmental standards at the construction site (e.g. material and energy efficiency)
- 6. Sustainable building materials (only applicable for new builds and renovations)
 - ✓ 100% of relevant underlying assets consider sustainable building materials in the building process (e.g. recycled materials).



- 7. Safety of building users
 - ✓ 100% of relevant underlying assets provide for measures to enhance operational safety (e.g. fire safety, elevator safety).
- 8. Water use minimisation in buildings
 - ✓ 4 out of 27 underlying assets, representing 67% of the underlying assets' volume, provide for measures to reduce water consumption (e.g. water metering, efficient appliances). For the remaining 23 assets, representing 33% of the assets' volume, no information on water use minimisation is available.
- 9. Energy efficiency in buildings:
 - ✓ 26 out of 27 underlying assets, representing 78% of the underlying assets' volume, received good scores in energy efficiency ratings or have relevant measures in place regarding energy efficiency. Regarding one underlying asset, representing 22% of the assets' volume, no detailed information on energy efficiency is available.
- 10. Labels / certificates
 - ✓ 4 out of 27 underlying assets, representing 67% of the underlying assets' volume, obtained a LEED "Gold" or a BREEAM "Excellent" certification. The remaining 23 assets, representing 33% of the assets' volume, are not certified to at least BREEAM "Very Good", DGNB "Silver / Gold"³, LEED "Gold" or HQE "Excellent" but obtained at least a "Silver" certification to the (less detailed) Swedish Miljöbyggnad label.
- 11. Sustainable use / purpose of buildings
 - ✓ 100% of underlying assets are neither production facilities of armaments, pesticides or tobacco nor generation facilities for nuclear power or fossil fuelled energy.

Controversy assessment

• A controversy assessment on the underlying assets did not reveal any controversial activities or practices that could be attributed to Nordea.

³ With effect from 1 July 2015, DGNB updated its certification scheme, now ranging from "Bronze" to "Platinum": The "Bronze" certificate will be replaced by "Silver", "Silver" by "Gold" and "Gold" by "Platinum" for new certifications with immediate effect. "Bronze" will only be used for existing buildings in the future. The evaluation system and the assessment methodology remain unchanged.



Water management (water supply)

Sustainability Benefits and Risks of the Asset Category

Purification and the supply of water respond to sustainability challenges, as such services satisfy the most basic human need by the provision of access to water. By providing good quality water in sufficient quantity, water supply projects allow to reduce water-related diseases and to improve hygiene conditions of consumers. High standards in infrastructure and processes of water supply can also reduce water use. Then, as most of this resource is used for irrigation, high quality supply impacts positively on food quality and on protection of soil against pollution.

However, water supply projects also bear certain social and environmental risks. Major social risks stem from poor water quality that can threat consumers' health and the risk of shut-down of water access for financial reasons. From an environmental point of view, water ecosystems can be threatened by pollution risks and by the withdrawal of a too large amount of water from freshwater sources.

All projects selected for the Green Bond Asset Portfolio are located in highly-regulated, Nordic countries.

- 1. Consideration of environmental aspects during planning and construction
 - ✓ 100% of underlying assets underwent environmental impact assessments at the planning stage.
 - ✓ For 100% of underlying assets, the location of water supply plants in key biodiversity areas can be excluded.
 - ✓ For the majority of underlying assets (no percentage available), the location of infrastructure for water withdrawal from natural water reservoirs in key biodiversity areas can be excluded. For the minority underlying assets, the location in a Ramsar site cannot be excluded.
- 2. Environmental impacts of water treatment
 - ✓ 100% of underlying assets provide for high standards regarding sustainable water withdrawal (e.g. risk assessments, monitoring, pollution prevention).
 - **O** Only basic information is available regarding the reduction leakages from the water distribution system (e.g. regular inspections, response management).
 - ✓ 100% of underlying assets provide for high standards regarding water quality (e.g. thorough purification process, reporting).
- 3. Social aspects of water treatment
 - Underlying assets only have single measures in place to encourage different customer groups to save water.
 - ✓ 100% of underlying assets are located in countries in which access to water is regulated and provided for by social welfare.



- 4. Working conditions during construction and operation
 - ✓ 100% of underlying assets are located in countries where high labour standards are in place for both employees and contractors (provided for by national legislation).
 - ✓ 100% of underlying assets are located in countries where high health and safety standards are in place for both employees and contractors (provided for by national legislation).

Controversy Assessment

• A controversy assessment on the underlying assets did not reveal any controversial activities or practices that could be attributed to Nordea.



Wastewater management

Sustainability Benefits and Risks of the Asset Category

From a sustainability point of view, benefits of wastewater treatment are the provision of clean water for reuse as well as safeguarding water sources and the ground from contamination through wastewater.

At the same time, the construction and operation of wastewater treatment facilities pose social as well as environmental risks. Social risks mainly stem from workers' health and safety and from nuisance of local residents. Environmental risks stem from possible environmental impacts of wastewater treatment processes, i.e. leakage of sewage or poor management of sewage sludge disposal (e.g. disposal into waterways). Also quality standards for treated water need to be taken into account when evaluating wastewater treatment projects.

All projects selected for the Green Bond Asset Portfolio are located in highly-regulated, Nordic countries.

- 1. Consideration of environmental aspects during planning and construction
 - ✓ 100% of underlying assets underwent environmental impact assessments at the planning stage.
 - ✓ 100% of underlying assets are not located in key biodiversity areas (e.g. exclusion of Ramsar sites, UNESCO Natural Word Heritage, IUCN protected areas I-IV).
 - ✓ 100% of underlying assets comply with local regulations and meet high environmental standards during the construction phase (e.g. noise mitigation, minimisation of pollution).
- 2. Environmental impacts of wastewater treatment plants
 - ✓ 100% of underlying assets feature measures to prevent leakage of sewerage systems (e.g. monitoring).
 - ✓ 100% of underlying assets use sewage sludge for energy generation and apply strict environmental standards for agricultural use of and landfill of sewage sludge. No information is available on a strategy to reduce environmental impacts of sewage sludge disposal (e.g. regarding the reduction of agricultural use and landfill disposal).
 - ✓ 100% of assets feature thorough cleaning processes in order to provide for high quality of treated water.
- 3. Community dialogue
 - ✓ 100% of underlying assets comply with local regulations which provide for good standards regarding the consideration of local residents' interests during the planning phase (e.g. information meetings).



- 4. Working conditions during construction and operation
 - ✓ 100% of underlying assets are located in countries where high labour standards are in place for both employees and contractors (provided for by national legislation).
 - ✓ 100% of underlying assets are located in countries where high health and safety standards are in place for both employees and contractors provided for by national legislation).

Controversy Assessment

• A controversy assessment on the underlying assets did not reveal any controversial activities or practices that could be attributed to Nordea.



Waste-to-energy (combustion)

Sustainability Benefits and Risks of the Asset Category

Generation of energy through waste-to-energy plants is considered beneficial from a sustainability point of view, as waste-to-energy power plants allow to re-use waste that cannot be used or recycled any further. As this waste disposal approach decreases the amount of waste sent to landfill, negative impacts related to landfill sites can be reduced. The release of landfill gas that contributes to global warming and is a threat to human health can be avoided and risks related to pollution from landfill disposal lowered.

Still, when evaluating waste-to-energy projects, certain social and environmental risks need to be taken into account. Major environmental risks stem from air emissions in the combustion process and from waste residues as a source of pollution after the combustion process. Social risks are mainly posed by working conditions, especially regarding workers' health and safety. Further, general safety aspects of power plants could also result in negative impacts on human health as well as on the environment.

All projects selected for the Green Bond Asset Portfolio are located in highly-regulated, Nordic countries.

- 1. Consideration of environmental aspects during planning and construction
 - ✓ 100% of underlying assets underwent environmental impact assessments at the planning stage.
 - ✓ 100% of underlying assets are not located in key biodiversity areas such as Ramsar sites, UNESCO Natural World Heritage and IUCN protected areas I-IV.
 - No information is available on high environmental standards during the construction phase (e.g. noise mitigation, minimisation of environmental impact during construction work).
- 2. Environmental aspects of waste to energy plants
 - ✓ 100% of underlying assets provide for high standards concerning environmentally safe operation of plants (e.g. strict control of air emissions, measures to prevent the release of residues).
 - ✓ 100% of underlying assets apply cogeneration technology.
- 3. Safety aspects of waste to energy plants
 - ✓ 100% of underlying assets provide for high safety standards (e.g. regarding fire and explosion risks).
- 4. Community dialogue
 - ✓ 100% of underlying assets feature community dialogue as an integral part of the planning process and construction stage (e.g. sound information of communities, community advisory panels and committees, online dialogue platforms and grievance mechanisms).



- 5. Working conditions during construction and operation
 - ✓ 100% of underlying assets are located in countries where high labour standards are in place for both employees and contractors (provided for by national legislation).
 - ✓ 100% of underlying assets are located in countries where high health and safety standards are in place for both employees and contractors (provided for by national legislation).

Controversy assessment

• A controversy assessment on the underlying assets did not reveal any controversial activities or practices that could be attributed to Nordea.

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Part III – Assessment of Nordea's Sustainability Performance

In the oekom Corporate Rating with a rating scale from A+ (excellent) to D-(poor), Nordea was awarded a score of C and classified as "Prime". This means that the company performed well in terms of sustainability, both compared against others in the industry and in terms of the industry-specific requirements defined by oekom research. In oekom research's view, the securities issued by the company thus all meet the basic requirements for sustainable investments.



As at 13 June 2017, this rating puts Nordea in place 17 out of 250 companies rated by oekom research in the Financials/Commercial Banks and Capital Markets sector.

In this sector, oekom research has identified the following issues as the key challenges facing companies in term of sustainability management:

- Sustainability standards for the lending business
- Customer and product responsibility
- Sustainable investment criteria
- Employee relations and work environment
- Business ethics

In all key issues, Nordea achieved a rating that was above the average for the sector. A very significant outperformance was achieved in "Sustainable investment criteria" and "Business ethics".

The company has not committed any violations in the areas of controversial business practices or controversial areas of business, and thus does not breach any of the exclusion criteria, which are frequently applied by investors. Overall, the company has only a "minor" controversy level compared to a level of "significant" in the industry's average.

Details on the rating of the issuer can be found in Annex 2 "Issuer rating results".

oekom research AG Munich, 14 June 2017



Disclaimer

1. oekom research AG uses a scientifically based rating concept to analyse and evaluate the environmental and social performance of companies and countries. In doing so, we adhere to the highest quality standards which are customary in responsibility research worldwide. In addition we create a Second Party Opinion (SPO) on bonds based on data from the issuer.

2. We would, however, point out that we do not warrant that the information presented in this SPO is complete, accurate or up to date. Any liability on the part of oekom research AG in connection with the use of these SPO, the information provided in them and the use thereof shall be excluded. In particular, we point out that the verification of the compliance with the selection criteria is based solely on random samples and documents submitted by the issuer.

3. All statements of opinion and value judgements given by us do not in any way constitute purchase or investment recommendations. In particular, the SPO is no assessment of the economic profitability and credit worthiness of a bond, but refers exclusively to the social and environmental criteria mentioned above.

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About oekom research

oekom research is one of the world's leading rating agencies in the field of sustainable investment. The agency analyses companies and countries with regard to their environmental and social performance. oekom research has extensive experience as a partner to institutional investors and financial service providers, identifying issuers of securities and bonds which are distinguished by their responsible management of social and environmental issues. More than 100 asset managers and asset owners routinely draw on the rating agency's research in their investment decision making. oekom research's analyses therefore currently influence the management of assets valued at over 600 billion euros.

As part of our Green Bond Services, we provide support for companies and institutions issuing sustainable bonds, advise them on the selection of categories of projects to be financed and help them to define ambitious criteria. We verify the compliance with the criteria in the selection of projects and draw up an independent second party opinion so that investors are as well informed as possible about the quality of the loan from a sustainability point of view.

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Annex

- Annex 1: oekom Green Bond Analysis Framework
- Annex 2: oekom Corporate Rating of Nordea Bank AB



Annex 1: oekom Green Bond Analysis Framework

oekom Green Bond Analysis Framework

The oekom Green Bond Analysis Framework serves as a structure for evaluating the sustainability quality – i.e. the social and environmental added value – of the Green Bond Asset Portfolio. It comprises firstly the definition of the use of proceeds category offering added social and/or environmental value and secondly the specific sustainability criteria by means of which this added value and therefore the sustainability performance of the Green Bond Asset Portfolio can be clearly identified and described.

The sustainability criteria are complemented by specific indicators, which enable quantitative measurement of the sustainability performance of the Green Bond Asset Portfolio and which can be used for comprehensive reporting.

Use of Proceeds

The Nordea Green Bond Framework consists of the following categories, of which some are included in the Green Bond Asset Portfolio:⁴

A. Renewable Energy

- Wind power (onshore and offshore)
- Solar power (not included in the Green Bond Asset Portfolio)
- Hydro power
- Integration of renewable energy into the transmission network (not included in the Green Bond Asset Portfolio)
- B. Energy Efficiency (not included in the Green Bond Asset Portfolio)
 - Smart grids (not included in the Green Bond Asset Portfolio)
 - Energy storage (not included in the Green Bond Asset Portfolio)
 - District heating (not included in the Green Bond Asset Portfolio)
- C. Green Buildings

⁴ Not all categories are included in the Green Bond Asset Portfolio. An oekom Green Bond Analysis Framework was only developed for categories actually represented in the Green Bond Asset Portfolio.



D. Pollution Prevention and Control

- Water management (water supply)
- Waste water management
- Waste-to-energy (combustion)
- E. Clean Transportation (not included in the Green Bond Asset Portfolio)
- F. Sustainable Management of Living Natural Resources (not included in the Green Bond Asset Portfolio)
 - Sustainable Forestry (not included in the Green Bond Asset Portfolio)
 - Sustainable Agriculture (not included in the Green Bond Asset Portfolio)

Sustainability Criteria and Indicators for Use of Proceeds

In order to ensure that the environmental and social risks linked to the underlying assets are prevented and the opportunities clearly fostered, a set of sustainability criteria has been established for the asset categories.

A. Renewable energy

Wind power (onshore and offshore)

1. Consideration of environmental aspects during planning and operation

Quantitative indicators:

- Percentage of wind power-related loans whose underlying assets underwent environmental impact assessments at the planning stage.
- Percentage of wind power-related loans whose underlying assets are not located in key biodiversity areas (e.g. Ramsar sites, UNESCO Natural Word Heritage, IUCN protected areas I-IV).
- Percentage of wind power-related loans whose underlying assets meet high environmental standards and requirements during the construction phase (e.g. noise mitigation, minimisation of environmental impact during construction work).
- Percentage of wind power-related loans whose underlying assets provide for measures to protect habitat and wildlife (e.g. measures to protect birds and bats during operation of the power plant).

2. Environmental aspects of wind power plants

Quantitative indicator:

• Percentage of wind power-related loans whose underlying assets were subject to life-cycle assessments.



3. Community dialogue (onshore plants only)

Quantitative indicator:

 Percentage of wind power-related loans whose underlying assets feature community dialogue as an integral part of the planning process and the operational phase (e.g. sound information of communities, community advisory panels and committees, surveys and dialogue platforms, grievance mechanisms and compensation schemes).

4. Working conditions during construction and maintenance work

Quantitative indicator:

 Percentage of wind power-related loans whose underlying assets provide for high labour and health and safety standards for construction and maintenance work conducted by own employees and contractors (e.g. ILO core conventions).

5. Social standards in the supply chain

Quantitative indicator:

• Percentage of wind power-related loans whose underlying assets provide for high labour and health and safety standards in the supply chain (e.g. ILO core conventions).

Controversies

 Description of controversies (e.g. due to labour rights violations, environmental accidents, adverse biodiversity impacts).

Possible impact indicators: Energy production and avoidance of CO₂ emissions

- Total annual energy production by the wind power-related assets (in kWh).
- Total annual avoidance of CO₂ emissions through the wind power-related assets (in t), based on the carbon intensity of the relevant country's / region's energy mix.



Hydro power (small run-of-river plants or energy efficiency improvements)

1. Consideration of environmental aspects during planning and construction

Quantitative indicators:

- Percentage of hydro power-related loans whose underlying assets underwent environmental impact assessments at the planning stage.
- Percentage of hydro power-related loans whose underlying assets are not located in key biodiversity areas (e.g. exclusion of Ramsar sites, UNESCO Natural Word Heritage, IUCN protected areas I-IV).
- Percentage of hydro power-related loans whose underlying assets meet high environmental standards and requirements during the construction phase (e.g. noise mitigation, minimisation of environmental impact during construction work).
- Percentage of hydro power-related loans whose underlying assets provide for measures to protect habitat and wildlife (e.g. provision of fish passes, fish-friendly turbines, provision for sediment transport, management of erosion risks).

2. Community dialogue

Quantitative indicator:

 Percentage of hydro power-related loans whose underlying assets feature community dialogue as an integral part of the planning process and construction phase (e.g. sound information of communities, community advisory panels and committees, surveys and dialogue platforms, grievance mechanisms and compensation schemes).

3. Working conditions during construction and maintenance work

Quantitative indicator:

• Percentage of hydro power-related loans whose underlying assets meet high labour and health and safety standards for own employees and contractors (e.g. ILO core conventions).

Controversies

 Description of controversies (e.g. due to labour rights violations, environmental accidents, adverse biodiversity impacts).

Possible impact indicators: Avoidance of CO₂ emissions

- Total annual energy production by the hydro power-related assets (in kWh).
- Total annual avoidance of CO₂ emissions by the hydro power-related assets (in t); based on the carbon intensity of the relevant (e.g. country) energy mix.



C. Green Buildings

1. Involvement of local residents at the planning stage (only applicable for new builds)

Quantitative indicator:

• Percentage of real estate loans whose underlying assets provide for involvement of residents at the planning stage (e.g. information of residents, dialogue platforms).

2. Environmental standards for site selection (only applicable for new builds)

Quantitative indicators:

- Percentage of real estate loans whose underlying assets are developed on brownfield sites.
- Percentage of real estate loans whose underlying assets are large-scale building projects (> 5,000 m²) outside metropolitan areas and subject to an environmental impact assessment.

3. Access to public transport (only applicable for new builds)

Quantitative indicator:

 Percentage of real estate loans whose underlying assets are located within a maximum of 1 km from one or more modalities of public transport.

4. Social standards for construction (only applicable for new builds and renovations)

Quantitative indicator:

 Percentage of real estate loans whose underlying assets provide for high labour and health and safety standards for construction and maintenance work conducted by own employees and contractors (e.g. ILO core conventions).

5. Environmental standards for construction (only applicable for new builds and renovations)

Quantitative indicator:

• Percentage of real estate loans whose underlying assets provide for resource efficiency (e.g. water, energy) and adequate management at the construction site.

6. Sustainable building materials (only applicable for new builds and renovations)

Quantitative indicator:

 Percentage of real estate loans whose underlying assets provide for sustainable procurement regarding building materials (e.g. recycled materials, third-party certification of wood based materials).

7. Safety of building users

Quantitative indicator:

• Percentage of real estate loans whose underlying assets provide for measures to enhance operational safety (e.g. fire safety, elevator safety).

8. Water use minimisation in buildings

Quantitative indicator:



• Percentage of real estate loans whose underlying assets provide for measures to reduce water consumption (e.g. water metering, high-efficiency fixtures and fittings, rainwater harvesting).

9. Energy efficiency of buildings

Quantitative indicator (new builds and existing buildings):

• Percentage of real estate loans whose underlying assets received good scores in the energy efficiency ratings of the respective buildings certificates (BREEAM, LEED) or that are proven to be part of the top 15% of the local market in terms of energy efficiency.

Quantitative indicator (renovations):

• Percentage of real estate loans whose underlying assets achieved / will achieve energy efficiency improvements of at least 20% after renovation.

10. Labels / Certificates

Quantitative indicator:

 Percentage of real estate loans whose underlying assets obtained a (or an equivalent of a) BREEAM "Very Good", DGNB "Silver / Gold"⁵, LEED "Gold", HQE "excellent" certificate or better certification.

11. Sustainable use / purpose of buildings (if already determined)

Quantitative indicator:

 Percentage of real estate loans whose underlying assets are neither production facilities of armaments, pesticides or tobacco nor generation facilities for nuclear power or fossil fuelled energy.

Controversies

• Description of controversial projects (e.g. due to labour rights violations, environmental accidents, adverse biodiversity impacts).

Possible impact indicators: Energy consumption and avoidance of CO₂ emissions

- Average primary energy consumption (in kWh/m²).
- Annual CO₂ emissions (in kg/m²) compared to the local average.

⁵ With effect from 1 July 2015, DGNB updated its certification scheme, now ranging from "Bronze" to "Platinum": The "Bronze" certificate will be replaced by "Silver", "Silver" by "Gold" and "Gold" by "Platinum" for new certifications with immediate effect. "Bronze" will only be used for existing buildings in the future. The evaluation system and the assessment methodology remain unchanged.



D. Pollution Prevention and Control

Water management (water supply)

1. Consideration of environmental aspects during planning and construction

Quantitative indicators:

- Percentage of water-related loans whose underlying assets underwent environmental impact assessments at the planning stage.
- Percentage of water-related loans whose underlying assets are not located in key biodiversity areas (e.g. exclusion of Ramsar sites, UNESCO Natural Word Heritage, IUCN protected areas I-IV).
- Percentage of water-related loans whose underlying assets meet high environmental standards and requirements during the construction phase (e.g. pollution prevention, noise).

2. Environmental impacts of water treatment

Quantitative indicators:

- Percentage of water-related loans whose underlying assets provide for high standards regarding sustainable water withdrawal (e.g. risk assessments, monitoring, pollution prevention).
- Percentage of water-related loans whose underlying assets feature measures to reduce leakages from the water distribution system (e.g. regular inspections, response management).
- Percentage of water-related loans whose underlying assets provide for high standards regarding water quality (i.e. healthiness and purity requirements).

3. Social aspects of water treatment

Quantitative indicators:

- Percentage of water-related loans whose underlying assets have measures in place to encourage customers to save water (e.g. water meters, information).
- Percentage of water-related loans whose underlying assets provide for responsible treatment of disadvantaged costumers (e.g. regarding disconnection).

4. Working conditions during construction and operation

Quantitative indicator:

• Percentage of water-related loans allocated to projects with high labour and health and safety standards for own employees and contractors (e.g. ILO core conventions).

Controversies

• Description of controversies (e.g. due to accidents, adverse biodiversity impacts).



Wastewater management

1. Consideration of environmental aspects during planning and construction

Quantitative indicators:

- Percentage of wastewater-related loans whose underlying assets underwent environmental impact assessments at the planning stage.
- Percentage of wastewater-related loans whose underlying assets are not located in key biodiversity areas (e.g. exclusion of Ramsar sites, UNESCO Natural Word Heritage, IUCN protected areas I-IV).
- Percentage of wastewater-related loans whose underlying assets meet high environmental standards during the construction phase (e.g. noise mitigation, minimisation of environmental impact during construction work).

2. Environmental impacts of wastewater treatment plants

Quantitative indicators:

- Percentage of wastewater-related loans whose underlying assets feature measures to prevent leakage of sewerage systems (e.g. monitoring systems, adequate maintenance and repair).
- Percentage of wastewater-related loans whose underlying assets feature measures to reduce the environmental impacts of sewage sludge disposal (e.g. exclusion of introduction into waterways and landfill, exclusion or standards for agricultural use, utilisation of energy).
- Percentage of wastewater-related loans whose underlying assets provide for high standards regarding the quality of treated water.

3. Community dialogue

Quantitative indicator:

 Percentage of wastewater-related loans whose underlying assets feature community dialogue as an integral part of the planning process and construction phase (e.g. sound information of communities, community advisory panels and committees, surveys and dialogue platforms, grievance mechanisms and compensation schemes).

4. Working conditions during construction and operation

Quantitative indicator:

• Percentage of wastewater-related loans whose underlying assets provide for high labour and health and safety standards for own employees and contractors (e.g. ILO core conventions).

Controversies

• Description of controversial projects (e.g. due to accidents, adverse biodiversity impacts).



Waste to energy (combustion)

1. Consideration of environmental aspects during planning and construction

Quantitative indicators:

- Percentage of waste to energy-related loans whose underlying assets underwent environmental impact assessments at the planning stage.
- Percentage of waste to energy-related loans whose underlying assets are not located in key biodiversity areas (e.g. exclusion of Ramsar sites, UNESCO Natural Word Heritage, IUCN protected areas I-IV).
- Percentage of waste to energy-related loans whose underlying assets meet high environmental standards and requirements during the construction phase (e.g. noise mitigation, minimisation of environmental impact during construction work).

2. Environmental aspects of waste to energy plants

Quantitative indicators:

- Percentage of waste to energy-related loans whose underlying assets provide for high standards regarding environmentally safe operation of plants (e.g. air emissions, disposal of residues).
- Percentage of waste to energy-related loans whose underlying assets apply cogeneration technology.

3. Safety aspects of waste to energy plants

Quantitative indicator:

• Percentage of waste to energy-related loans whose underlying assets provide for high safety standards (e.g. regarding fire, explosions).

4. Community dialogue

Quantitative indicator:

 Percentage of waste to energy-related loans whose underlying assets feature community dialogue as an integral part of the planning process and construction phase (e.g. sound information of communities, community advisory panels and committees, surveys and dialogue platforms, grievance mechanisms and compensation schemes).

5. Working conditions during construction and operation

Quantitative indicators:

- Percentage of waste to energy-related loans whose underlying assets provide for high labour and health and safety standards for construction work conducted by own employees and contractors (e.g. ILO core conventions).
- Percentage of waste to energy-related loans whose underlying assets provide for high labour and health and safety standards for operational tasks conducted by own employees and contractors (e.g. ILO core conventions).

Controversies

• Description of controversies (e.g. accidents, adverse biodiversity impacts).

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Nordea Bank AB

Methodology - Overview

oekom Corporate Rating	The oekom Universe comprises more than 3,800 companies (mostly companies in important national and international indices, but also small & mid caps drawn from sectors with links to sustainability as well as significant non-listed bond issuers).			
	The assessment of the social and environmental performance of a company is generally carried out with the aid of approx. 100 social and environmental criteria, selected specifically for each industry. All criteria are individually weighted, evaluated and aggregated to yield an overall score (Rating). In case there is no relevant or up-to-date company information available on a certain criterion, it is graded with a D			
	In order to generate a comprehensive picture of each company, our analysts collect information relevant to the rating both from the company itself and from independent sources. During the rating process, considerable importance is attached to cooperating extensively with the company under evaluation. Companies are regularly given the opportunity to comment on the results and provide additional information.			
	An external rating committee assists the analysts at oekom research with the content-related design of industry-specific criteria and carries out a final plausibility check of the rating results at the end of the rating process.			
Controversy Monitor	The oekom Controversy Monitor is a tool for assessing and managing reputational and financial risks associated with companies' negative environmental and social impacts.			
	The controversy score is a measure of the number and extent of the controversies in which a company is currently involved: all controversial business areas and business practices are assigned a negative score, which varies depending on the significance and severity of the controversy. Both the score of the portrayed company and the maximum score obtained in the industry are displayed.			
	For better classification, the scores are assigned to different levels: minor, moderate, significant and severe. The industry level relates to the average controversy score.			
	Only controversies, for which reliable information from trustworthy sources is available, are recorded. It should be noted that large international companies are more often the focus of public and media attention and available information is often more comprehensive than for less prominent companies.			
Distribution of Ratings	Overview of the distribution of all company ratings of an industry from the oekom Universe (company portrayed in this report: light blue). The industry-specific Prime threshold (vertical dotted line) is also shown.			
Industry Classification	The social and environmental impacts of industries differ. Therefore, subject to its relevance, each industry analysed is classified in a Sustainability Matrix.			
	Depending on this classification, the two dimensions of the oekom Corporate Rating, i.e. the Social Rating and the Environmental Rating, are weighted and the sector-specific minimum requirements for the oekom Prime Status (Prime threshold) are defined (absolute best-in-class approach).			
Industry Leaders	List (in alphabetical order) of the top three companies in an industry from the oekom Universe at the time of generation of this report.			
Key Issue Performance	Overview of the company's performance with regard to important social and environmental issues that are key to the industry, compared to the industry average.			
Rating History	Trend in the company's rating over time and comparison to the average rating in the industry.			
Rating Scale	Companies are rated on a twelve-point scale from A+ to D-: A+: the company shows excellent performance. D-: the company shows poor performance. Overview of the range of scores achieved in the industry (light blue) and display of the industry-specific Prime threshold (vertical dotted line).			
Status & Prime Threshold	Companies are categorised as Prime if they achieve/exceed the minimum sustainability performance requirements (Prime threshold) defined by oekom for a specific industry (absolute best-in-class approach) in the oekom Corporate Rating. Prime companies rank among the leaders in that industry.			
Strengths & Weaknesses	Overview of selected strengths and weaknesses of a company with regard to relevant social and environmental criteria.			

Please note that all data in this report relates to the point in time at which the report was generated.